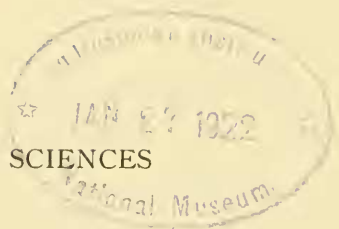


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VIII

UNDESCRIBED TIPULIDÆ (DIPTERA) FROM WESTERN
NORTH AMERICA, PART II

BY

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The first part under this title appeared in 1920 (Proc. Cal. Acad. Sci., ser. 4, vol. X, no. 5, pp. 35-46). The few additional species that were included in the 1920 collections of crane-flies are discussed at this time. The types of all the species are contained in the collection of the California Academy of Sciences. I am indebted as heretofore to the collector, Mr. E. P. Van Duzee.

Subfamily Limnobiinæ
Tribe Eriopterini
Genus *Rhabdomastix* Skuse
Subgenus *Sacandaga* Alexander

1. *Rhabdomastix* (*Sacandaga*) *californiensis*, new species

Antennæ black; head dark, yellowish gray pruinose; pronotum light yellow with a narrow dark brown median line; mesonotum yellowish gray, the præscutum with four narrow dark brown stripes; pleura grayish plumbeous, variegated and striped with yellowish; halteres pale; wings grayish subhyaline; stigma pale brown; vein *Sc* long; *R*₂ moderately long, from one-third to nearly one-half *R*₂₊₃; abdomen dark brown, the segments indistinctly and narrowly ringed with paler.

Male.—Length, 4.6 mm.; wing, 5.6 mm.

Rostrum and palpi dark brown. Antennæ black, the first scapal segment grayish pruinose; flagellar segments oval, the

more distal ones long-cylindrical. Head dark brown, heavily light gray pruinose.

Pronotum conspicuous light yellow with a narrow dark brown median line. Mesonotal præscutum yellowish-gray with four narrow and rather indistinct dark brown stripes, the intermediate pair longest, only narrowly separated from one another; pseudosutural foveæ conspicuous, black; scutum and postnotum light gray pruinose; scutellum brown, grayish pruinose, the caudal margin broadly yellowish. Pleura grayish plumbeous, variegated with yellowish; a conspicuous yellowish longitudinal stripe crossing the dorsal margin of the sternum, above the legs, passing ventrad in front of the posterior coxæ. Halteres pale. Legs with the coxæ obscure yellow, the outer faces slightly infuscated; trochanters pale; remainder of the legs pale brown, the tarsi dark brown. Wings grayish subhyaline; stigma oval, pale brown; veins dark brown. Venation: *Sc* ending from two-thirds to three-fourths the length of the long sector, *Sc*₂ far from the tip of *Sc*₁, the latter alone being a little longer than the basal deflection of *Cu*₁; *R*₂₊₃ comparatively short, from two to two and one-half times *R*₂ alone; *r* lacking; basal deflection of *Cu*₁ at about one-fourth the length of cell 1st *M*₂; vein 2nd *A* but slightly sinuous.

Abdomen dark brown, the caudal margins of the segments narrowly and indistinctly ringed with paler.

In its venation, *Rhabdomastix californiensis* agrees more closely with the type of the subgenus, *R. flava* (Alex.) than it does with *R. monticola* (Alex.) of British Columbia. *Gonomyia galactoptera* Bergr. of Alaska is a member of this genus and subgenus.

Holotype, male, No. 743, Mus. Calif. Acad. Sci.; E. P. Van Duzee collector, May 22, 1920.

Type locality, Pleyto, Monterey County, Calif.

Tribe Hexatomini

The writer has explained in another paper (The Crane-flies of New York, Part 2, Biology and Phylogeny. Cornell Univ. Agr. Expt. Sta., Memoir 38, p. 835, 1921) the necessity for uniting the former tribes Limnophilini and Hexatomini.

Genus *Limnophila* Macquart

2. *Limnophila pteropæcila*, new species

General coloration, shiny dark brownish-black; halteres pale;

femora brownish yellow, tipped with dark brown; wings pale yellowish, conspicuously variegated with brown on the cross-veins and deflections of veins; cell 1st M_2 long and narrow, m being one-half longer than the basal deflection of Cu_1 .

Female.—Length about 8.8 mm.; wing, 9.3 mm.

Rostrum and palpi brownish-black. Antennæ dark brownish-black throughout, the first scapal segment elongate-cylindrical. Head shiny dark brown, sparsely pruinose, strongly narrowed posteriorly, the eyes protuberant.

Thorax shiny dark brown, very sparsely grayish yellow pruinose, without stripes. Pleura dark brown, sparsely pruinose. Halteres pale throughout. Legs with the coxæ and trochanters obscure yellow; femora brownish yellow, tipped with dark brown; tibiæ light brown, tipped with dark brown; tarsi dark brown. Wings with a strong yellowish tinge; cells C and Sc more saturated; a conspicuous brown pattern, arranged as follows: A brown spot at the origin of Rs ; a conspicuous seam along the cord, extending from the tip of Sc to the fork of M ; Cu and the deflection of Cu_1 seamed with brown; outer end of cell 1st M_2 similar; a brown spot at r and a smaller one at the fork of M_{1+2} ; veins dark brown, paler in the saturated areas. Venation: Sc long, Sc_1 ending about opposite the fork of R_{2+3} , Sc_2 at the extreme tip of Sc_1 , a little longer than $r-m$; Rs rather long, almost straight, arcuated at origin; R_{2+3} rather short, from one to two times as long as $r-m$; r at the tip of R_1 and on R_2 beyond midlength; inner ends of cells R_3 and R_6 in alignment; cell 1st M_2 very long and narrow, its inner end conspicuously arcuated; m very long and slightly arcuated, about one-half longer than the basal deflection of Cu_1 and nearly three times the outer deflection of M_3 ; cell 1st M_2 much longer than vein M_3 beyond it and longer than the petiole of cell M_1 ; cell M_1 shorter than its petiole; basal deflection of Cu_1 about its own length beyond the fork of M ; distal section of Cu_1 , beyond cell 1st M_2 , about equal to m .

Abdomen dark brownish black, the pleural membranes paler. Ovipositor with the valves horn-colored, the dorsal shield shiny black; tergal valves of the ovipositor strongly compressed.

It is possible that *Limnophila pteropacila* is more correctly referable to *Dactylolabis* but this is uncertain. The fly differs strikingly from all other known species in the Nearctic fauna.

Holotype, female, No. 744, Mus. Calif. Acad. Sci.; E. P. Van

Duzee collector, July 1, 1920.

Type locality, Forks, Clallam Co., Washington.

Subfamily Tipulinæ

Tribe Tipulini

Genus *Tipula* Linnæus

3. *Tipula optiva*, new species

Antennæ of male elongated; head and thorax gray, the præscutum with three brown stripes; femora yellow, the tips dark brown; wings grayish yellow; abdomen yellow, the tergites with a conspicuous black median stripe; segments eight and nine, black; male hypopygium with a conspicuous, pale, shovel-shaped median lobe on the caudal margin of the eighth sternite.

Male.—Length, 14.5 mm.; wing, 14 mm.; antenna about 8 mm.

Frontal prolongation of head brownish-yellow; palpi dark brown, passing into black at tip. Antennæ of male elongated, if bent backward, extending about to base of fourth abdominal segment; scapal segments yellow; first flagellar segment yellowish-brown; remainder of flagellum black; flagellar segments elongate, constricted at midlength, the apical node longer than the basal enlargement. Head dull gray; two buffy spots on the occipital region.

Mesonotum buffy gray, the præscutum with three dark brown stripes, the median stripe narrowly bisected behind; scutum gray, the centers of the lobes darker; scutellum light brown; postnotum light gray. Pleura light gray pruinose, the dorso-pleural membrane more buffy. Halteres pale brown, the knobs dark brown. Legs with the coxæ gray; trochanters yellow; femora yellow, the tips conspicuously dark brown; tibiæ dark brown, passing into black at the tips; tarsi black. Wings with a strong grayish yellow tinge; wing-base and cells *C* and *Sc* more yellowish; stigma oval, brown; veins dark brown. Venation: *Rs* gently arcuated, shorter than *R*₃; cell 1st *M*₂ elongated; *m* parallel with the basal deflection of *M*₁₊₂; petiole of cell *M*₁ about equal to *m*; *m-cu* punctiform, a short distance beyond the fork of *M*.

Abdominal tergites yellow, segments two to seven with a narrow but conspicuous black dorso-median stripe that is narrowly interrupted at the posterior margin of the segments; tergites eight and nine black; an indistinct brown sublateral line;

sternites yellow, the eighth segment black with the conspicuous median lobe light yellow; ninth sternite brownish black. Male hypopygium with the posterior margin of the ninth tergite produced into a flattened ledge with a very broad and shallow V-shaped notch, the margins rugulose, sparsely setiferous, the lateral angles short and subacute. Ninth pleurite small but complete; outer pleural appendage very long and narrow, broadest just beyond the base, tapering gradually to the blunt apex. Ninth sternite very broadly membranous beneath; dorso-caudal angle produced proximad and slightly dorsad into cylindrical reddish lobes that are clothed with reddish setæ. Eighth sternite with a conspicuous shovel-shaped median lobe that is broadest at the base, narrowed to the apex, the narrow caudal end weakly emarginate.

Superficially, *Tipula optiva* bears a considerable resemblance to *T. taughannock* Alexander (Eastern North America). The structure of the hypopygium, however, indicates that it is, in all probability, a member of the *arctica* group, allied to *T. subarctica* Alexander, *T. pribilofensis* Alexander, and other species.

Holotype, male, No. 745, Mus. Calif. Acad. Sci.; E. P. Van Duzee collector, July 9, 1920.

Type locality, Northbend, King County, Washington.